

GenCore version 4.5  
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OM nucleic - nucleic search, using sw model

Run on: March 9, 2002, 01:06:55 ; Search time 755.06 Seconds  
(without alignments)  
27.251 Million cell updates/sec

Title: US-09-851-670-3

Perfect score: 24

Sequence: 1 tggcgtctggtggtcgcgaag 24

Scoring table: IDENTITY\_NUC

Searched: 930621 seqs, 428662619 residues

Total number of hits satisfying chosen parameters: 1026190

Minimum DB seq length: 0  
Maximum DB seq length: 60

Post-processing: Minimum Match 0%

Maximum Match 100%

Database :

Listing first 45 summaries

N\_Geneseq\_1101.\*  
1: /SID52/gcgdata/geneseq/geneseq/NA1980.DAT.\*  
2: /SID52/gcgdata/geneseq/geneseq/NA1981.DAT.\*  
3: /SID52/gcgdata/geneseq/geneseq/NA1982.DAT.\*  
4: /SID52/gcgdata/geneseq/geneseq/NA1983.DAT.\*  
5: /SID52/gcgdata/geneseq/geneseq/NA1984.DAT.\*  
6: /SID52/gcgdata/geneseq/geneseq/NA1985.DAT.\*  
7: /SID52/gcgdata/geneseq/geneseq/NA1986.DAT.\*  
8: /SID52/gcgdata/geneseq/geneseq/NA1987.DAT.\*  
9: /SID52/gcgdata/geneseq/geneseq/NA1988.DAT.\*  
10: /SID52/gcgdata/geneseq/geneseq/NA1989.DAT.\*  
11: /SID52/gcgdata/geneseq/geneseq/NA1990.DAT.\*  
12: /SID52/gcgdata/geneseq/geneseq/NA1991.DAT.\*  
13: /SID52/gcgdata/geneseq/geneseq/NA1992.DAT.\*  
14: /SID52/gcgdata/geneseq/geneseq/NA1993.DAT.\*  
15: /SID52/gcgdata/geneseq/geneseq/NA1994.DAT.\*  
16: /SID52/gcgdata/geneseq/geneseq/NA1995.DAT.\*  
17: /SID52/gcgdata/geneseq/geneseq/NA1996.DAT.\*  
18: /SID52/gcgdata/geneseq/geneseq/NA1997.DAT.\*  
19: /SID52/gcgdata/geneseq/geneseq/NA1998.DAT.\*  
20: /SID52/gcgdata/geneseq/geneseq/NA1999.DAT.\*  
21: /SID52/gcgdata/geneseq/geneseq/NA2000.DAT.\*  
22: /SID52/gcgdata/geneseq/geneseq/NA2001.DAT.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Length	ID	Description
1	16.2	67.5	55 14	AAQ41951
2	16.2	67.5	55 14	AAQ41952
3	16.2	67.5	60 19	AAV21370
4	15	62.5	30 19	AAV99618
5	14.6	60.8	40 17	AAV70675
6	14.4	60.0	33 20	AAZ25247
7	14.4	60.0	33 20	AAZ25248
8	14.4	60.0	43 19	AAV00317
9	14.4	60.0	43 22	AAV73235
10	14.2	59.2	31 21	AAZ49486
11	14	58.3	20 14	AAQ49692

12	14	58.3	20 16	AAQ97909	PNA oligomer target
13	14	58.3	20 16	AAQ84196	PKC-gamma antisense
14	14	58.3	20 19	AAV35536	Oligo ON36 target
15	14	58.3	20 20	AAZ27301	Human protein kinase
16	14	58.3	20 20	AAV78559	Human PKC-gamma ol
17	14	58.3	20 20	AAV83668	Human protein kinase
18	14	58.3	20 20	AAZ22597	Human protein kinase
19	14	58.3	20 20	AAV19162	Human PKC-gamma an
20	14	58.3	24 22	AAV87564	TGAT SECIS element
21	14	58.3	29 20	AAZ28666	Nucleotide sequenc
22	14	58.3	29 21	AAV00326	Hammerhead ribozym
23	14	58.3	60 22	AAV00238	Thrombin 60N DNA 1
24	14	58.3	60 22	AAV70790	Thrombin high affi
25	13.8	57.5	30 22	AAV44559	Mouse DSS-induced
26	13.6	56.7	20 20	AAV81591	PCR primer used to
27	13.6	56.7	26 20	AAV57350	Parvovirus detecti
28	13.6	56.7	27 22	AAV86683	DNA encoding a hae
29	13.6	56.7	30 21	AAZ49882	Oligonucleotide fo
30	13.6	56.7	33 19	AAV07684	Influenza haemaggl
31	13.6	56.7	42 20	AAV76869	PCR primer for clo
32	13.6	56.7	43 16	AAQ80044	Primer #1 for epi
33	13.6	56.7	43 18	AAV1996	Primer for human c
34	13.6	56.7	43 18	AAV33254	Human glutathione
35	13.6	56.7	45 16	AAQ80045	Primer #2 for epi
36	13.6	56.7	45 18	AAV33255	Human glutathione
37	13.6	56.7	45 20	AAV76870	PCR primer for clo
38	13.6	56.7	47 19	AAV33663	Human interleukin-
39	13.6	56.7	48 20	AAV72975	Human Doc2-alpha p
40	13.6	56.7	48 20	AAV72976	Human Doc2-alpha p
41	13.6	56.7	49 17	AAV13006	Adrenergic recepto
42	13.6	56.7	50 19	AAV43690	Yeast YCF1 gene re
43	13.6	56.7	51 16	AAV08791	Influenza HA epi
44	13.6	56.7	51 18	AAV88963	3' PCR primer used
45	13.6	56.7	51 20	AAV02168	Human HA-1BSV rec

## ALIGNMENTS

RESULT 1	AAQ41951/c	AAQ41951 standard; DNA; 55 BP.
ID	AAQ41951	
XX	AAQ41951	
AC	AAQ41951	
XX	08-SEP-1993	(first entry)
DT	08-SEP-1993	(first entry)
XX	Ig alpha CH1 region	Intron/exon sequence flanking 3' splice site.
DE	Ig alpha CH1 region	Intron/exon sequence flanking 3' splice site.
XX	Antisense oligonucleotide; immunoglobulin; pre-mRNA splicing;	
KW	Intron removal; antibody production; transcriptional regulation;	
KW	allergy; immunosuppression; heavy chain; constant region; CH1; ds.	
XX	Homo sapiens.	
OS	Homo sapiens.	
XX		
EH	key	Location/Qualifiers
FT	misc-feature	1
FT	misc-feature	/tag= a
FT	misc-feature	/note= "conserved branch point residue"
FT	misc-feature	34..35
FT	misc-feature	/tag= b
FT	misc-feature	/note= "3' intron-exon junction"
FT	misc-feature	1..35
FT	misc-feature	/tag= c
FT	misc-feature	"Pref. oligonucleotides of the invention are complementary to at least a continuous 12nt sequence from this region or with a portion of this segment and a continuous portion of the sequence downstream of the splice site"
XX	W09310138-A.	
PN	W09310138-A.	
XX	27-MAY-1993.	

XX 18-NOV-1992: 92WO-US10024.  
PF  
XX  
XX 18-NOV-1991: 91US-0794395.  
PR  
XX  
XX (TANO-) TANOX BIOSYSTEMS INC.  
PA  
XX  
XX Chang TW;  
PI  
XX  
XX WPI: 1993-182481/22.  
DR  
XX  
XX Anti-sense oligo-nucleotide(s) for isotype-specific suppression  
PT of immunoglobulin prodn. - used for treating auto-immune diseases  
PT and allergies and causing humoral immunosuppression  
XX  
XX  
PS Claim 7, Page 22; 32pp; English.  
XX  
XX Oligonucleotides complementary to the splicing recognition region  
CC of Ig pre-mRNA are preferably complementary to at least a continuous  
CC 12 nucleotide sequence of the region indicated in the features table.  
CC Such antisense oligonucleotides can be used to prevent or inhibit  
CC maturation of Ig mRNA and hence interfere with production of  
CC functional immunoglobulins. Selective suppression of Ig isotypes can  
CC be used to cause humoral immunosuppression for treating allergies  
CC and autoimmune diseases.  
XX  
SQ Sequence 55 BP; 10 A; 22 C; 13 G; 10 T; 0 other;

Query Match 67.5%; Score 16.2; DB 14; Length 55;  
Best Local Similarity 85.7%; Pred. No. 2.1e+02;  
Matches 18; Conservative 0; Mismatches 3; Indels 0; Gaps 0;  
OY 2 ggctggtctggtatgcgga 22  
||||||| ||||| |||||  
DB 50 GGCTGCTCGGGATGCTGGA 30

RESULT 2  
AAQ41952/C  
ID AAQ41952 standard; DNA; 55 BP.  
XX  
XX AAQ41952;  
AC  
XX  
XX 08-SEP-1993 (first entry)  
DT  
XX  
XX Ig alpha2 CH1 region Intron/exon sequence flanking 3' splice site.  
DE  
XX  
XX Antisense oligonucleotide; immunoglobulin; pre-mRNA splicing;  
XX Intron removal; antibody production; transcriptional regulation;  
KW allergy; immunosuppression; heavy chain; constant region; CH1; ds.  
XX  
XX Homo sapiens.  
OS  
XX  
XX Key Location/Qualifiers  
FH 1  
FT misc-feature  
FT /tag= a  
FT /note= "conserved branch point residue"  
FT 34..35  
FT /tag= b  
FT /note= "3' intron-exon junction"  
FT 1..35  
FT misc-feature  
FT /tag= C  
FT /note= "Pref. oligonucleotides of the invention are  
FT complementary to at least a continuous 12nt  
FT sequence from this region or with a portion  
FT of this segment and a continuous portion of  
FT the sequence downstream of the splice site"  
XX  
XX WO9310138-A.  
PN  
XX  
XX 27-MAY-1993.  
PD  
XX

PF 18-NOV-1992: 92WO-US10024.  
XX  
XX 18-NOV-1991: 91US-0794395.  
PR  
XX  
XX (TANO-) TANOX BIOSYSTEMS INC.  
PA  
XX  
XX Chang TW;  
PI  
XX  
XX WPI: 1993-182481/22.  
DR  
XX  
XX Anti-sense oligo-nucleotide(s) for isotype-specific suppression  
PT of immunoglobulin prodn. - used for treating auto-immune diseases  
PT and allergies and causing humoral immunosuppression  
XX  
XX  
PS Claim 7, Page 22; 32pp; English.  
XX  
XX Oligonucleotides complementary to the splicing recognition region  
CC of Ig pre-mRNA are preferably complementary to at least a continuous  
CC 12 nucleotide sequence of the region indicated in the features table.  
CC Such antisense oligonucleotides can be used to prevent or inhibit  
CC maturation of Ig mRNA and hence interfere with production of  
CC functional immunoglobulins. Selective suppression of Ig isotypes can  
CC be used to cause humoral immunosuppression for treating allergies  
CC and autoimmune diseases.  
XX  
SQ Sequence 55 BP; 10 A; 23 C; 13 G; 9 T; 0 other;

Query Match 67.5%; Score 16.2; DB 14; Length 55;  
Best Local Similarity 85.7%; Pred. No. 2.1e+02;  
Matches 18; Conservative 0; Mismatches 3; Indels 0; Gaps 0;  
OY 2 ggctggtctggtatgcgga 22  
||||||| ||||| |||||  
DB 50 GGCTGCTCGGGATGCTGGA 30

RESULT 3  
AAV21370/C  
ID AAV21370 standard; DNA; 60 BP.  
XX  
XX AAV21370;  
AC  
XX  
XX 14-AUG-1998 (first entry)  
DT  
XX  
XX Immunoglobulin genomic CH alpha 1.  
DE  
XX  
XX ss; Ig; heavy chain; stimulation; inhibition; treatment; IgM; IgG; IgA;  
KW IgE; isotype switching; allergy; autoimmune; alloimmune.  
XX  
XX Homo sapiens.  
OS  
XX  
XX WO9807738-A1.  
PN  
XX  
XX 26-FEB-1998.  
PD  
XX  
XX 15-AUG-1997; 97WO-US15485.  
PF  
XX  
XX 19-AUG-1996; 96US-0023579.  
PR  
XX  
XX (REGC ) UNIV CALIFORNIA.  
PA  
XX  
XX Fujieda S, Ke Z, Saxon AW;  
PI  
XX  
XX WPI: 1998-179050/16.  
DR  
XX  
XX New immunoglobulin trans-spliced transcripts - used for, e.g.  
PT stimulating or inhibiting synthesis of particular immunoglobulin  
PT isotype, useful for treating immune disorders  
XX  
XX Example 2; Page 36; 83pp; English.  
PS  
XX  
XX The nucleotides AAV21362-V21373 are examples of the genomic fragments  
CC

CC from which sequences were used to create trans-spliced transcripts. The  
CC transcripts comprise a sequence capable of annealing to a human genomic  
CC immunoglobulin (Ig) heavy chain I region of a locus selected from mu,  
CC epsilon, alpha and gamma followed by a second sequence capable of  
CC annealing to a region of a second locus selected from mu, epsilon, alpha  
CC and gamma as above. The products can be used for stimulating or  
CC inhibiting synthesis of a particular human Ig isotype. They can be used  
CC for treating disorders mediated by IgM, IgG, IgA or IgE, in particular  
CC for inhibiting IgE synthesis or isotype switching to IgE for treating  
CC allergic disorders. They can also be used for treating autoimmune and  
CC autoimmune diseases amongst others.

XX Sequence 60 BP; 9 A; 26 C; 12 G; 13 T; 0 other;

Qy Query Match 67.5%; Score 16.2; DB 19; Length 60;  
Best Local Similarity 85.7%; Pred. No. 2.1e+02;  
Matches 18; Conservative 0; Mismatches 3; Indels 0; Gaps 0;  
Db 2 ggctgctcgtggatgctgga 22  
45 ggctgctcgtggatgctgga 25

RESULT 4  
AAT99618/C  
ID AAT99618 standard; DNA; 30 BP.  
AC AAT99618;  
XX  
XX  
XX 06-JUL-1998 (first entry)  
DT

DE Protein kinase LIMK1 gene intron 10/exon 11 junction.

XX Williams syndrome cognitive profile; WSCP; cognition; LIM-kinase 1;  
KW LIMK1 gene; supra-vascular aortic stenosis; protein kinase; human;  
KM ds.

XX Homo sapiens.

OS  
XX  
XX Key Location/Qualifiers  
FH 1..20  
FT /\*tag= a  
FT /note= "3' end of intron 10"  
FT 21..30  
FT /\*tag= b  
FT /note= "5' end of exon 11"

PN W09801740-A2.

XX 15-JAN-1998.

XX 07-JUL-1997; 97MO-US11687.

XX 10-JUL-1996; 96US-0678039.

XX (UTAH ) UNIV UTAH RES FOUND.

XX Keating MT, Morris CA;

XX WPI; 1998-101185/09.

XX Diagnosing Williams syndrome cognitive profile from hemizyosity of  
PT LIMK1 - gene on chromosome 7 encoding new kinase, allowing  
PT differentiation from classic Williams syndrome and supra-vascular  
PT aortic stenosis

PS Example 3; Page 24; 62pp; English.

XX This sequence comprises the junction between intron 10 and exon 11  
CC of the human LIM-kinase 1 (LIMK1) gene. Exon 11 contains 60  
CC nucleotides. The LIMK1 genomic structure was determined by DNA  
CC sequence analyses of genomic clones containing LIMK1. The gene

CC consists of 16 exons (see also AAV05315 and AAT99599-T99629) and spans  
CC approximately 37 kb. The gene is located 15.4 kb 3' of the  
CC elastin gene in chromosome 7. It encodes a novel protein kinase  
CC (see AAW6576). A claimed method for determining the presence of  
CC Williams syndrome cognitive profile (WSCP) comprises determining  
CC the zygosity of the LIMK1 locus, with hemizyosity being indicative  
CC of impaired visuo-spatial constructive cognition. A claimed method  
CC for distinguishing whether an individual has Williams syndrome  
CC (WS), WSCP or SVAS (supra-vascular aortic stenosis) involves  
CC analysis of deletion of parts of chromosome 7. Deletion of the ELN  
CC (elastin) locus but not LIMK1 indicates SVAS, deletion of ELN and  
CC LIMK1 but no more than about 100 kb 3' to LIMK1 indicates WSCP, and  
CC deletion of ELN, LIMK1 and over 300 kb 3' of LIMK1 indicates WS.

XX Sequence 30 BP; 6 A; 12 C; 4 G; 8 T; 0 other;

Qy Query Match 62.5%; Score 15; DB 19; Length 30;  
Best Local Similarity 78.3%; Pred. No. 6.9e+02;  
Matches 18; Conservative 0; Mismatches 5; Indels 0; Gaps 0;  
Db 1 ttgctgctcgtggatgctgga 23  
28 TGCTGCTCCTGGATGAGAGAAAG 6

RESULT 5  
AAT70675/C  
ID AAT70675 standard; RNA; 40 BP.  
XX  
XX  
XX AAT70675;  
AC  
XX  
XX 29-JUL-1997 (first entry)  
DT

DE Fibrin clot binding ligand FCN8.

XX Ligand: peripheral blood mononuclear cell; fibrin clot; carotid artery;  
KW systematic evolution of ligands by exponential enrichment method; PBMC;  
KW epitope; macromolecule; tissue SELEX method; cancer screening; therapy;  
KM AIDS monitoring; localisation of thrombi; atherosclerosis; ss.

XX Synthetic.

OS  
XX  
XX key Location/Qualifiers  
FH 1..40  
FT /\*tag= a  
FT /mod\_base= all C's are 2-fluorine-C  
FT 1..40  
FT /\*tag= b  
FT /mod\_base= all U's are 2-fluorine-U

PN W09634874-A1.

XX 07-NOV-1996.

XX 01-MAY-1996; 96WO-US06059.

XX 03-MAY-1995; 95US-0433126.

XX 03-MAY-1995; 95US-0433124.

XX (NEXS-) NEXSTAR PHARM INC.

XX (SCHD ) SCHERING AG.

XX Gold L, Schneider DJ, Speck U, Stephens A;

XX WPI; 1996-506091/50.

XX Nucleic acid ligands used in cancer screening, AIDS monitoring etc.  
PT - bind to peripheral blood mononuclear cells, fibrin clots or  
PT carotid arteries  
XX  
XX Claim 18; Page 51; 138pp; English.





XX 30-JUL-1999; 99EP-0114971.  
XX  
XX 30-JUL-1998; 98JP-0216047.  
XX  
XX (AJIN ) AJINOMOTO KK.  
XX Sugiyama M, Tonouchi N, Suzuki S, Yokozeki K;  
XX WPI: 2000-118551/11.  
XX  
XX New proteins for production of xyliitol, useful as food sweetener and  
XX for treatment of diabetes mellitus -  
XX Example 3; Page 24; 31pp; English.  
XX  
XX The present sequence is PCR primer XDH2UP-S1. This was used in the  
XX preparation of DNA fragment of upstream region of XDH2 (xyliitol  
XX dehydrogenase) by using Takara LA PCR in vitro Cloning Kit. The PCR  
XX reaction was performed by using Gene Amp PCR System 9600. XDH acts upon  
XX D-xylose to produce xyliitol which is used as a low calorie sweetener  
XX and prevents dental caries. Xyliitol is also useful for fluid therapy in  
XX the treatment of diabetes mellitus.  
XX  
XX Sequence 31 BP; 6 A; 12 C; 7 G; 6 T; 0 other;

Query Match 59.2%; Score 14.2; DB 21; Length 31;  
Best Local Similarity 84.2%; Pred. No. 1.6e+03;  
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

OY 5 tggctcggatgcggaag 23  
|||||  
Db 22 TGGTCCGGAGCTCGGAG 4

RESULT 11  
AAQ49692/C  
ID AAQ49692 standard; DNA; 20 BP.

XX AC AAQ49692;

XX DT 25-APR-1994 (first entry)

XX DE PKC-gamma translation initiation codon binding oligomer 215-196.

XX KW Antisense; oligonucleotide; inter-sugar linkage; protein kinase C;  
XX KW phosphorochlionate linkage; PKC; transcription initiation site;  
XX KW translation initiation site; 5' cap region; intron/exon boundary;

XX KW diagnosis; therapeutics; prophylaxis; ss.

XX OS Synthetic.

XX FH Key Location/Qualifiers

XX FT misc-feature 1..20

XX FT /tag= a  
XX /note= "phosphorochlionate linkages"

XX PN WO9319203-A.

XX PD 30-SEP-1993.

XX PF 25-FEB-1993; 93WO-US02213.

XX PR 16-MAR-1992; 92US-0852852.

XX PA (ISIS-) ISIS PHARM INC.

XX PI Bennett CF, Dean N;

XX WPI: 1993-320768/40.

XX Oligo-nucleotide(s) hybridise to nucleic acids encoding Protein

PT kinase C - useful as diagnostics and therapeutics for disease  
XX states associated with particular isozymes of PKC  
XX  
XX Claim 6; Page 19; 64pp; English.

XX The sequences given in AAQ49657-707 are antisense oligonucleotides  
XX which contain altered inter-sugar linkages, pref. phosphorochlonte  
XX linkages. These oligomers bind with the protein kinase C (PKC) mRNA  
XX at the transcription initiation site, the translation initiation  
XX site, the 5' cap region, an intron/exon boundary, coding sequences  
XX or sequences in the 5'- or 3'-untranslated regions. These  
XX oligonucleotides may be used in diagnostics, therapeutics,  
XX prophylaxis and as research reagents. The numbers allocated to  
XX the oligonucleotides are relative to the first residue to be sequenced  
XX on the cDNA, which is 28 residues upstream of the ATG start codon.

XX Sequence 20 BP; 4 A; 9 C; 2 G; 5 T; 0 other;

Query Match 58.3%; Score 14; DB 14; Length 20;  
Best Local Similarity 100.0%; Pred. No. 1.9e+03;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 tggctggtctgga 14  
|||||  
Db 19 TGGCTGCTTGGA 6

RESULT 12  
AAQ97909/C  
ID AAQ97909 standard; DNA; 20 BP.

XX AC AAQ97909;

XX DT 17-OCT-1995 (first entry)

XX DE PMA oligomer targeting AUG region of PKC-tau.

XX DE Peptide nucleic acid; PNA; PKC-alpha; protein kinase C; ss;

XX KW cell proliferation; cell differentiation; isozyme; antisense;

XX KW triple helix; cancer; psoriasis; inflammation.

XX OS Synthetic.

XX FH Key Location/Qualifiers

XX FT misc-feature 1..20

XX FT /tag= a  
XX /note= "at least one (and preferably all) of

XX the backbone subunits are composed of N-acetyl  
XX N-(2-aminoethyl)glycine peptide residues, the  
XX nucleobase being attached covalently to the  
XX acetyl group and the peptide linkage being  
XX formed by condensation of the glycine  
XX carboxy group of one residue with the amino  
XX group of the 2-aminoethyl moiety in the next  
XX residue"

XX PN WO9503833-A.

XX PD 09-FEB-1995.

XX PF 28-JUL-1994; 94WO-US08465.

XX PR 23-JUL-1993; 93US-0099098.

XX PA (ISIS-) ISIS PHARM INC.

XX PI Dean NM;

XX WPI: 1995-082040/11.

XX New peptide nucleic acid oligomers specific for protein kinase C  
XX isozyme(s) - useful as anti-sense molecules for treating PKC

PT mediated disease, e.g. cancer, psoriasis and inflammation  
XX  
PS Claim 17; Page 264; 287pp; English.  
XX New peptide nucleic acid (PNA) oligomers are provided which (a) consist  
CC of naturally occurring nucleobases covalently bound to a polyamide  
CC backbone and (b) hybridise to the translation initiation AUG region,  
CC coding region, 5' untranslated region (5' UTR) or 3' untranslated region  
CC (3' UTR) of PKC-alpha or its isoforms. The PNAs can be used to target  
CC RNA and single stranded DNA (ssDNA) to produce antisense-type gene  
CC regulation moieties. They inhibit expression of PKC-alpha and its  
CC isoforms (including beta, gamma, delta, epsilon, zeta and eta) and so  
CC are useful for treating and diagnosing cell proliferation and  
CC differentiation processes such as neoplastic, hyperproliferative  
CC and inflammatory diseases.  
CC PNA oligomers have high affinity for complementary single stranded DNA.  
CC They are also able to form triple helices in which a first PNA strand  
CC binds with RNA or ssDNA and a second PNA strand binds with the resulting  
CC double helix or with the first PNA strand. The PNAs possess no  
CC significant charge and are water soluble, which facilitates cellular  
CC uptake. Further, since they contain amides of non-biological amino acids,  
CC they are biostable and resistant to enzymatic degradation by proteases.  
CC The present sequence targets the AUG region of PKC-tau.  
XX  
SQ Sequence 20 BP; 4 A; 9 C; 2 G; 5 T; 0 other;

Query Match 58.3%; Score 14; DB 16; Length 20;  
Best Local Similarity 100.0%; Pred. No. 1.9e+03;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 tggctgcttgga 14  
|||||  
DB 19 TGGCTGCTTGGA 6

RESULT 13  
AAQ84196/C  
ID AAQ84196 standard; DNA; 20 BP.

XX AAQ84196;  
AC  
XX  
DT 21-SEP-1995 (first entry)  
XX  
DE PKC-gamma antisense oligo, binds to CDNA bases 196-215.  
XX

KW Antisense; protein kinase C; alpha; PKC; beta; gamma; eta; epsilon;  
KW zeta; modulation; expression; isozyme; hybridise; 5' UTR; human;  
KW 3' untranslated region; translation initiation site; detection;  
KW phosphorothioate linkage; 2'-O-methyl modification;  
KW 2'-O-propyl modification; ss.  
XX

OS Synthetic.

XX W09502069-A.

PN 19-JAN-1995.

PD 08-JUL-1994; 94WO-US07770.

PF 09-JUL-1993; 93US-0089996.

PR 22-FEB-1994; 94US-0199779.

XX (ISIS-) ISIS PHARM INC.

XX Bennett CF, Boggs RT, Dean NM;

PI WPI; 1995-066911/09.

XX  
XX  
PT Oligo:nucleotide(s) hybridisable with protein kinase C mRNA or  
PT gene - also novel PKC-alpha 3'-UTR sequence, useful for  
PT diagnosis and treatment of hyperproliferative disorders.  
XX

PS Claim 15; Page 27; 125pp; English.

XX The sequences given in AAQ84195-99 are oligos which are antisense to  
CC the protein kinase C-gamma (PKC-gamma) cDNA. These oligos are anti-  
CC sense to regions in the 5' untranslated region of the cDNA and around  
CC the translation initiation site. These antisense molecules may be  
CC used in modulating the expression of this particular isozyme of PKC.  
CC The oligos of the invention preferably hybridise with the 5'- or 3'-  
CC untranslated regions of the PKC gene, or the translation initiation  
CC site, or the coding region. These oligos may be used in the detection  
CC of the human PKC genes and for treatment of animals with conditions  
CC associated with PKC, esp. hyperproliferative diseases such as psoriasis,  
CC colorectal cancer, lung cancer, breast or skin cancer. These oligos may  
CC contain at least one phosphorothioate linkage and/or at least one of the  
CC nucleotides comprises a modification on the 2' position of the sugar,  
CC esp. a 2'-O-methyl or a 2'-O-propyl modification.  
XX

SQ Sequence 20 BP; 4 A; 9 C; 2 G; 5 T; 0 other;

Query Match 58.3%; Score 14; DB 16; Length 20;  
Best Local Similarity 100.0%; Pred. No. 1.9e+03;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 tggctgcttgga 14  
|||||  
DB 19 TGGCTGCTTGGA 6

RESULT 14  
AAV35536/C  
ID AAV35536 standard; DNA; 20 BP.

XX AAV35536;  
AC  
XX  
DT 01-SEP-1998 (first entry)  
XX

DE Oligo ON36 targeted to human protein kinase C (PKC)-gamma.

KW Protein kinase C; PKC; target; hybridisation; human; liposome;

KW sterically stabilised; neoplastic disorder; inflammatory disorder;

KW hyperproliferative disorder; cancer; psoriasis; PKC-gamma; ss.  
XX

OS Synthetic.

OS Homo sapiens.

XX W09809633-A2.

PN 12-MAR-1998.

PD 03-SEP-1997; 97WO-EP04796.

PF 04-SEP-1996; 96GB-0018376.

PR (NOVS) NOVARTIS AG.

XX Hamilton KO, Love WG, Nicklin PL, Phillips JA;

PI WPI; 1998-260955/23.

XX  
XX  
PT Oligo:nucleotide compositions for protein kinase C disorders -  
PT comprising sequence hybridisable to protein kinase C gene entrapped  
PT in sterically stabilised liposomes  
XX  
XX  
PS Claim 21; Page 8; 25pp; English.

XX This represents an oligonucleotide sequence that is specifically  
CC hybridisable with DNA or RNA derived from a protein kinase C (PKC) gene,  
CC entrapped in sterically stabilised liposomes. Compositions comprising  
CC such oligonucleotides can be used in the treatment of PKC disorders and  
CC for modulating the expression of PKC in cells. They can be used in the  
CC diagnosis and treatment of disorders associated with PKC, particularly  
CC neoplastic, inflammatory and hyperproliferative disorders such as cancer

CC or psoriasis. The compositions retain high activity after prolonged  
 CC circulation in the bloodstream and exhibit reduced accumulation of  
 CC oligonucleotides in non-target organs such as the liver and kidney.  
 XX  
 SQ Sequence 20 BP; 4 A; 9 C; 2 G; 5 T; 0 other;

Search completed: March 9, 2002, 01:06:55  
 Job time: 11941 sec

Query Match 58.3%; Score 14; DB 19; Length 20;  
 Best Local Similarity 100.0%; Pred. No. 1.9e+03;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 tggctggtctggga 14  
 |||||  
 DB 19 TGGCTGTCTGGCA 6

## RESULT 15

AA27301/G  
 ID AA27301 standard; DNA; 20 BP.

AC AA27301;

DT 01-DEC-1999 (first entry)

DE Human protein kinase C gamma antisense oligonucleotide #2.

KW Human; protein kinase C; PKC; diagnosis; antisense oligonucleotide;

KW phosphothioate; hybridisation; isozyme; target; inflammation;

KW hyperproliferative disorder; psoriasis; tumour; cancer; glioblastoma; ss.

OS Synthetic.

OS Homo sapiens.

PN US5959096-A.

PD 28-SEP-1999.

PF 07-JUN-1995; 95US-0481066.

PR 16-MAR-1992; 92US-0852852.

PR 09-JUL-1993; 93US-0089996.

XX (ISIS-) ISIS PHARM INC.

XX Bennett CF, Dean N;

XX WPI: 1999-561076/47.

XX Antisense oligonucleotides useful for treatment of hyperproliferative

XX and inflammatory conditions including psoriasis, tumours and cancer -

XX Claim 1; Column 16; 56pp; English.

XX The present invention describes antisense oligonucleotides up to 50

XX nucleotides in length which specifically bind mRNA encoding human

XX protein kinase C (PKC). AA27266 to AA27386 represent human PKC

XX antisense oligonucleotides used in the exemplification of the present

XX invention. The antisense oligonucleotides are useful for the treatment of

XX diseases associated with PKC expression, such as hyperproliferative and

XX inflammatory conditions including psoriasis, tumours and cancer

XX (glioblastoma, bladder, breast, colon and lung cancer).

SQ Sequence 20 BP; 4 A; 9 C; 2 G; 5 T; 0 other;

Query Match 58.3%; Score 14; DB 20; Length 20;  
 Best Local Similarity 100.0%; Pred. No. 1.9e+03;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 tggctggtctggga 14  
 |||||  
 DB 19 TGGCTGTCTGGCA 6





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